CONTENTS

Tectonophysics Volume 167

Research Papers

Nature of the crust under Afar: new igneous, not thinned continental
Mohr, P. (Galway, Ireland) 1

Suşehri basin: an active fault-wedge basin on the North Anatolian Fault Zone, Turkey
Koçyiğit, A. (Ankara, Turkey) 13

Seismic and volcanic activities and aseismic movements as plate motion components in the Aegean area
Papadopoulos, G.A. (Attika and Athens, Greece) 31

Seismotectonics and present-day relative plate motions in the New Hebrides–North Fiji Basin region
Louat, R. and Pelletier, B. (Noumea, New Caledonia) 41

Confined ductile deformation in the Japan arc inferred from paleomagnetic studies
Itoh, Y. (Kyoto, Japan) and Ito, Y. (Kanazawa, Japan) 57

Letter Section

Brittle–ductile transition: semi-brittle behavior
Ross, J.V. and Lewis, P.D. (Vancouver, B.C., Canada) 75

Special issue on Earthquake Hazard Assessment and Prediction (edited by M.J. Berry)

Preface iii

Theoretical calculations of the seismicity in Oaxaca, Mexico
Lomnitz-Adler, J. (Mexico City, Mexico) 81

Characteristic space–time patterns in seismic activity in the northwest Chubu district of Honshu Island, Japan, and the 1984 Nagano-ken Seibu earthquake
Yoshida, A. (Ibaraki, Japan) 93

A model for the present stress field along the Xian-shui-he fault belt, northwest Sichuan, China
Roth, F. (Bochum, F.R.G.) 103

The 1986–1988 intraplate earthquake sequence near João Câmara, northeast Brazil—evolution of seismicity
Takeya, M., Ferreira, J.M. (Natal, Brazil), Pearce, R.G. (Delft, The Netherlands), Assumpção, M. (Brasilia, Brazil), Costa, J.M. (Natal, Brazil) and Sophia, C.M. (São Paulo, Brazil) 117

United States National Seismograph Network
Massé, R.P., Filson, J.R. and Murphy, A. (Denver, Colo., U.S.A.) 133

Modeling ground-motion attenuation in eastern North America
Barker, J.S., Somerville, P.G. and McLaren, J.P. (Pasadena, Calif., U.S.A.) 139

Modelling earthquake ground motion for failure analysis
Dargahi-Noubary, G.R. (Kaiserslautern, F.R.G.) 151

Achievements and probable trends in seismic hazard assessment
Schenk, V. (Prague, Czechoslovakia) 157

A fractal approach to probabilistic seismic hazard assessment
Turcotte, D.L. (Ithaca, N.Y., U.S.A.) 171

Application of catastrophe theory in earthquake hazard assessment and earthquake prediction research
Liu, D.W., Wang, J.Y. and Wang, Y.J. (Wuhan, China) 179

Problems of seismic hazard estimation in regions with few large earthquakes: Examples from eastern Canada
Basham, P.W. and Adams, J. (Ottawa, Ont., Canada) 187

Time-variable factors in earthquake hazard
Rhoades, D.A. and Evison, F.F. (Wellington, New Zealand) 201

A procedure for evaluation of the seismic hazard
Dargahi-Noubary, G.R. (Kaiserslautern, F.R.G.) 211

Problems of seismic hazard assessment for the pleistoseismal area of swarm earthquakes in Western Bohemia and Vogtland
Schenk, V., Schenková, Z. (Prague, Czechoslovakia) and Grünthal, G. (Potsdam, G.D.R.) 217

Probabilistic assessment of earthquake hazard in Israel
Arieh, E. and Rabinowitz N. (Holon, Israel) 223

Probabilistic seismic hazard analysis and damage assessment in Andalusia (Spain)
Martin, A.J.M. (Sevilla, Spain) 235

Seismic hazard parameters estimation in Spain from historical and instrumental catalogues
García-Fernández, M., Jiménez, M.J. (Zürich, Switzerland) and Kijko, A. (Warsaw, Poland) 245
Probabilities of exceedance for prescribed peak ground accelerations (PGA) at selected southern African locations
Shapira, A. and Fernandez, L.M. (Pretoria, South Africa) 253
Frequency–magnitude relationships of southern African seismicity
Shapira, A., Fernandez, L.M. and Du Plessis, A. (Pretoria, South Africa) 261
Classification of earthquake precursors from a fracture mechanics model
Main, I.G. (Reading, U.K.) and Meredith, P.G. (London, U.K.) 273
Earthquake swarms precursory to moderate to great earthquakes in the northeast India region
Gupta, H.K. and Singh, H.N. (Trivandrum, India) 285
Premonitory seismicity patterns near Vancouver Island, Canada
Brown, D., Li, Q., Nyland, E. (Edmonton, Alta., Canada) and Weichert, D.H. (Sidney, B.C., Canada) 299
On the use of the parameter τ for long-term and medium-term earthquake prediction
Slavina, L.B. and Tagizade, T.T. (Moscow, U.S.S.R.) 313
Practical application of preparation gaps for intermediate-term earthquake prediction
Lu, Y. and Song, J. (Hefei, China) 319
Deformation monitoring of the Ostler Fault Zone, South Island, New Zealand
Blick, G.H., Read, S.A.L. (Lower Hutt, New Zealand) and Hall, P.T. (Timaru, New Zealand) 329
Investigation of gravity variation associated with crustal deformation of the Tianjin area before and after the Tangshan Earthquake
Li, R., Sun, H. and Hu, Y. (Wuhan, China) 341
Tidal and coseismic well-level observations at the Charlevoix Geophysical Observatory, Quebec
Bower, D.R. (Otttawa, Ont., Canada) 349